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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/731,208 | 12/09/2003 | James L. Hunter | P04419US01 | 4621 |

27142 7590 08/28/2006

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HAGEMAN, MARK

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| ART UNIT | PAPER NUMBER |
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3653

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/731,208 | HUNTER ET AL.- | |
| | Examiner | Art Unit | |
| | Mark Hageman | 3653 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 119-143 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 119-143 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-27-2006 has been entered.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 11, 12, 14, 119, 129, 130, 132 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claims 1 and 119 (section b) contain the phrase "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system." This phrase is inaccurate and indefinite as part c of claims 1 and 119 refers to "monitoring...(1) state of said conveying, (2) time, and (3) a said operation relative to each said set of seed." Furthermore the piping that conveys the seed in an airstream is a container as it contains the seed within a space. A coordinate system is inherent based on the fact that one can discern the location of the seed set in the system using the parameters discussed in part c of the claim.

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3. Claims 11, 12, 129, and 130 recite the limitation "wherein the state of the operations includes monitoring" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

4. Claims 14 and 132 recite the limitation "wherein the seed samples are related to a plant breeding program" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is believed that these claims should be dependant upon claims 13 and 131 respectively rather than 12 and 130 as written. The claims have been treated as dependant upon claims 13 and 131, appropriate correction is requested.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-18, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,150,158 to Bhide et al. in view of US 5,957,304 to Dawson. Bhide discloses, (a) providing, prior to the input, a unique identifier for each set of seed, wherein the set comprises a plurality of seed (col. 15, lines 40+); (b) conveying each set of seed, segregated from other sets of seed, from the input to the output (col. 16, lines 26+), (c) automatically performing one or more operations on each set of seed while tracking and maintaining segregation of each set of seed, wherein the tracking comprises monitoring of one or ore of the set consisting of the state of conveying, time and one or more operations relative to each set of seed (abstract); (d) automatically accumulating at the

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output an end product plurality of seed from the set of seed after performing one or more operations and storing information about the end product correlated to the identifier so that identity and progression of each set is known and commingling of seed from different sets of seed is avoided (col. 22, lines 45+).

7. Bhide does not disclose the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

8. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Bhide to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

9. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

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10. Bhide (referred to as "the reference" below) further discloses the limitations of the following dependant claims.

-With regards to claim 2, the reference further discloses segregating the set of seed from a second set of seed (col. 15, lines 14+).

-With regards to claim 3, the reference further discloses a plurality of sets of previously harvested seeds, each provided with a unique identifier, automatically performing said one or more operations while tracking and segregating each set of seed from each other (col. 15, lines 35+).

-With regards to claim 4, the reference further discloses monitoring said operations for conditions indicative of an error (col. 14, lines 60+).

-With regards to claim 5, the reference further discloses the conditions indicative of an error comprise one or more of (a) over capacity, (b) possibility of commingling of sets of seed, (c) improper operation; (d) lack of validation against a data set; (e) improper set of seeds relative to operational set-up (col. 14, lines 60+).

-With regards to claim 6, the reference further discloses regulating movement of a set of seed to deter reaching over-capacity for any operation (col. 14, lines 60+).

-With regards to claim 7, the reference further discloses progression of a said set of seeds through said one or more operations is controlled while maintaining segregation of the set of seeds (col. 15, lines 35+).

-With regards to claim 8, the reference further discloses control of progression comprises maintaining spatial separation of each set of seeds operating on the seeds

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and allowing recovery of each set of seeds while preserving its identity from other sets of seeds (col. 15, lines 35+).

-With regards to claim 9, the reference further discloses conveying said set of seed to an outlet wherein said tracking provides information used to verify which set of seed is at the outlet (col. 15, lines 35+).

-With regards to claim 10, the reference further discloses conveying said set of seed to and through said one or more operations, said tracking providing information to verify the location of the set of seed between input and output (col. 15, lines 35+).

-With regards to claim 11, the reference further discloses the tracking comprising tracking the state of the operations relative the set of seeds (col. 14, lines 60+).

-With regards to claim 12, the reference further discloses the state of the operations includes monitoring status of devices that control conveyance of the set of seeds (col. 14, lines 60+).

-With regards to claim 13, the reference further discloses the sets of seed are seed samples (abstract)

-With regards to claim 14, the reference further discloses the seed samples are related to a plant breeding program (col. 22, lines 45+).

-With regards to claims 15 and 16, the reference fails to explicitly disclose either a corn or soybean breeding program. At the time of the invention, it would have been obvious to one of ordinary skill in the art that the disclosed method is applicable to a variety of breeding programs (col. 14, lines 5+).

-With regards to claim 17, the reference further discloses the operations comprise one or more of (a) separating a set of seed from a carrier or adhering vegetation, tissues or structure, (b) cleaning, (c) discriminating between seeds in the set of seeds, (d) counting, (e) measuring moisture content, (f) measuring weight, (g) evaluating non-destructively, (h) measuring temperature (col. 22, lines 45+).

-With regards to claim 18, the reference further inherently discloses directing said end product into a container.

-With regards to claim 20, the reference further discloses generating a label for the set of seed or subset thereof based at least in part on information from the data set (col. 15, lines 40+).

-With regards to claim 23, the reference further discloses generating a notification for transmission to a remote location related to accumulated data regarding the set of seed and communicating the notification (col. 16, lines 26+).

11. Claims 119-136, 138, and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhide in view of US 4,697,709 to Coddling. Bhide discloses all the limitations of the claim except separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use. Coddling discloses, separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

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12. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Bhide to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Coddling, for the purpose of increasing sort accuracy (abstract).

13. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

14. Claims 120-136, 138 and 141 are exactly the same as claims 2-18, 20, and 23 and are thus covered under the portions of the reference previously noted in this action.

15. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhide in view of Dawson as applied to claims 1-18, 20 and 23 above, and further in view of Coddling. Bhide in view of Dawson teaches all the limitations of the claims except separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use. Coddling discloses, separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

16. It would have been obvious to one of ordinary skill in the art at the time of the

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applicants' invention to have modified Bhide in view of Dawson to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Coddington, for the purpose of increasing sort accuracy (abstract).

17. Claims 142 and 143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhide in view of Coddington as applied to claims 119-136, 138, and 141 above, and further in view of Dawson. Bhide in view of Coddington discloses all the limitations of the claims except the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

18. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Bhide in view of Coddington to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time

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selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

19. Claims 1-5, 7, 10, 12-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,705,827 to Keller et al. in view of US 5,957,304 to Dawson.

Keller discloses, (a) providing, prior to the input, a unique identifier for each set of seed, wherein the set comprises a plurality of seed (col. 5, lines 16+); (b) conveying each set of seed, segregated from other sets of seed, from the input to the output, (c) automatically performing one or more operations on each set of seed while tracking and maintaining segregation of each set of seed, wherein the tracking comprises monitoring of one or more of the set consisting of the state of conveying, time and one or more operations relative to each set of seed; (c) automatically accumulating at the output an end product plurality of seed from the set of seed after performing one or more operations and storing information about the end product correlated to the identifier so that identity and progression of each set is known and commingling of seed from different sets of seed is avoided (abstract).

20. Keller does not disclose the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the

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purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

21. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Keller to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

22. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

23. Keller (referred to as "the reference" below) further discloses the limitations of the following dependant claims.

- With regards to claim 2, the reference further discloses segregating the set of seed from a second set of seed (abstract).

- With regards to claim 3, the reference further discloses a plurality of sets of previously harvested seeds, each provided with a unique identifier, automatically performing said one or more operations while tracking and segregating each set of seed from each other (col. 5, lines 35+).

- With regards to claim 4, the reference further inherently discloses monitoring said operations for conditions indicative of an error (col. 6, lines 50+).

-With regards to claim 5, the reference further discloses the conditions indicative of an error comprise one or more of (a) over capacity, (b) possibility of commingling of sets of seed, (c) improper operation; (d) lack of validation against a data set; (e) improper set of seeds relative to operational set-up (col. 6, lines 50+).

-With regards to claim 7, the reference further discloses progression of a said set of seeds through said one or more operations is controlled while maintaining segregation of the set of seeds (col. 8, lines 12+).

-With regards to claim 10, the reference further discloses conveying said set of seed to and through said one or more operations, said tracking providing information to verify the location of the set of seed between input and output (col. 8, lines 12+).

-With regards to claim 12, the reference further discloses the state of the operations includes monitoring status of devices that control conveyance of the set of seeds (col. 8, lines 12+).

-With regards to claim 13, the reference further discloses the sets of seed are seed samples (abstract).

-With regards to claim 14, the reference further discloses the seed samples are related to a plant breeding program (col. 1. lines 20+).

-With regards to claims 15 and 16, the reference fails to explicitly disclose either a corn or soybean breeding program. At the time of the invention, it would have been obvious to one of ordinary skill in the art that the disclosed method is applicable to a variety of breeding programs (c8 lines 12+).

-With regards to claim 17, the reference further discloses the operations comprise one or more of (a) separating a set of seed from a carrier or adhering vegetation, tissues or structure, (b) cleaning, (c) discriminating between seeds in the set of seeds, (d) counting, (e) measuring moisture content, (f) measuring weight, (g) evaluating non-destructively, (h) measuring temperature (abstract).

-With regards to claim 18, the reference further discloses directing said end product into a container (abstract).

-With regards to claim 19, the reference further discloses said data set comprises a data base, a spreadsheet, or a mapped memory (col. 9, lines 35+).

-With regards to claim 21, the reference further discloses the operations are self-cleaning (col. 14, lines 21+).

-With regards to claim 22, the reference further discloses the operations include a cleaning/size sorting operation which is self-cleaning (col. 14, lines 21+).

-With regards to claim 23, the reference further discloses generating a notification for transmission to a remote location related to accumulated data regarding the set of seed and communicating the notification (col. 10, lines 1+).

24. Claims 119-123, 125, 128, 130-137, and 139-141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of US 4,697,709 to Coddling. Keller discloses all the limitations of the claim except separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use. Coddling discloses, separating undesired non-

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seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

25. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Keller to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Coddling, for the purpose of increasing sort accuracy (abstract).

26. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

27. Claims 120-123, 125, 128, 130-137, and 139-141 are exactly the same as claims 2-5, 7, 10, 12-19, 21-23 and are thus covered under the portions of the reference previously noted in this action.

28. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of Dawson as applied to claims 1-5, 7, 10, 12-19, 21-23 above, and further in view of Coddling. Keller in view of Dawson teaches all the limitations of the claims except separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use.

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Codding discloses, separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

29. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Keller in view of Dawson to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Codding, for the purpose of increasing sort accuracy (abstract).

30. Claims 142 and 143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of Codding as applied to claims 119-123, 125, 128, 130-137, and 139-141 above, and further in view of Dawson. Keller in view of Codding discloses all the limitations of the claims except the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

31. It would have been obvious to one of ordinary skill in the art at the time of the

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applicants' invention to have modified Keller in view of Codding to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

32. Claims 1-3, 7, 10, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 1,057,877 to Peeples in view of US 5,957,304 to Dawson. Peeples discloses (a) providing, prior to the input, a unique identifier for each set of seed, wherein the set comprises a plurality of seed (page 1, lines 75+); (b) conveying each set of seed, segregated from other sets of seed, from the input to the output, (c) automatically performing one or more operations on each set of seed while tracking and maintaining segregation of each set of seed, wherein the tracking comprises monitoring of one or ore of the set consisting of the state of conveying, time and one or more operations relative to each set of seed (page 1, lines 90+); (c) automatically accumulating at the output an end product plurality of seed from the set of seed after performing one or more operations and storing information about the end product correlated to the identifier so that identity and progression of each set is known and commingling of seed from different sets of seed is avoided (page 1, lines 90+).

33. Peeples does not disclose the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the

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operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

34. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Peeples to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

35. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

36. Peeples (referred to as "the reference" below) further discloses the limitations of the following dependant claims.

- With regards to claim 2, the reference further discloses segregating the set of seed from a second set of seed (page 2, lines 15+).

- With regards to claim 3, the reference further discloses a plurality of sets of previously harvested seeds, each provided with a unique identifier, automatically

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performing said one or more operations while tracking and segregating each set of seed from each other (page 1, lines 90+; page 2, lines 15+).

-With regards to claim 7, the reference further discloses progression of a said set of seeds through said one or more operations is controlled while maintaining segregation of the set of seeds (page 2, lines 15+).

-With regards to claim 10, the reference further discloses conveying said set of seed to and through said one or more operations, said tracking providing information to verify the location of the set of seed between input and output (page 2, lines 15+).

-With regards to claim 15, the reference further discloses the plant breeding program is a corn breeding program (page 1, lines 100+).

- With regards to claim 16, the reference fails to explicitly a soybean breeding program. At the time of the invention, it would have been obvious to one of ordinary skill in the art that the disclosed method is applicable to a variety of breeding programs (page 1 lines 100+).

-With regards to claim 17, the reference further discloses the operations comprise one or more of (a) separating a set of seed from a carrier or adhering vegetation, tissues or structure, (b) cleaning, (c) discriminating between seeds in the set of seeds, (d) counting, (e) measuring moisture content, (f) measuring weight, (g) evaluating non-destructively, (h) measuring temperature (page 2, lines 23+).

37. Claims 119-121, 125, 128, 133-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peebles in view of US 4,697,709 to Coddington. Peebles discloses all the limitations of the claim except separating undesired non-seed material and a portion

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of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use. Codding discloses, separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

38. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Peeples to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Codding, for the purpose of increasing sort accuracy (abstract).

39. The language "without individual containers for each set or monitoring a physical location correlated to a pre-defined coordinate system," is not given patentable weight as the language is indefinite and irreconcilable with the disclosed invention.

40. Claims 120, 121, 125, 128, 133-135 are exactly the same as claims 2, 3, 7, 10, 15-17 and are thus covered under the portions of the reference previously noted in this action.

41. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeples in view of Dawson as applied to claims 1-3, 7, 10, 15-17 above, and further in view of Codding. Peeples in view of Dawson teaches all the limitations of the claims except separating undesired non-seed material and a portion of seed from the

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set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use.

Codding discloses, separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), for the purpose of increasing sort accuracy (abstract).

42. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Peeples in view of Dawson to include separating undesired non-seed material and a portion of seed from the set of seed during said one or more operations, said separated non-seed material and said portion of seed are either discarded or accumulated for possible future use (abstract), as taught by Codding, for the purpose of increasing sort accuracy (abstract).

43. Claims 142 and 143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeples in view of Codding as applied to claims 119-121, 125, 128, 133-135 above, and further in view of Dawson. Peeples in view of Codding discloses all the limitations of the claims except the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed. Dawson discloses, the operations being programmable dependant upon selected parameters (sorting c2 line 18-22), the parameters being related to differences between types of seed or differences between conditions of the same type of seed (c3 lines 49-53), for the

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purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

44. It would have been obvious to one of ordinary skill in the art at the time of the applicants' invention to have modified Peeples in view of Coddling to include the operations being programmable dependant upon selected parameters, the parameters being related to differences between types of seed or differences between conditions of the same type of seed, as taught by Dawson, for the purpose of providing real time selective control (C2 lines 22-24) and for logging useful information regarding the harvest (C2 lines 26-31).

Response to Arguments

45. Applicant's arguments filed 6-27-2006 have been fully considered but they are not persuasive. Applicant's contends that the references cited utilize a coordinate system, whereas Applicant does not. As stated above, a coordinate system is inherently present when measuring movement from one position to another. Applicant further attempts to distinguish the present invention from Bhide et al., contending that Bhide et al. does not perform operations on the seed itself, but is directed to growing plants. Examiner contends, however, that operations are performed on the seed itself—scanning to determine presence of the seed.

Conclusion


46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Hageman whose telephone number is (571) 272-3027. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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MCH



PATRICK MACKEY
PRIMARY EXAMINER